

Air Education and Training Command

Develop America's Airmen Today ... for Tomorrow



TSPG ADVANCED PLANNING BRIEFING TO INDUSTRY

**AETC
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U.S. AIR FORCE

23 May 06

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Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE 23 MAY 2006		2. REPORT TYPE		3. DATES COVERED 00-00-2006 to 00-00-2006	
4. TITLE AND SUBTITLE Develop America's Airmen Today ... for Tomorrow				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Education and Training Command, 100 H Street, Ste. 4, Randolph AFB, TX, 78150-4331				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES 2006 Air Force Advance Planning Briefing to Industry (APBI), May 23, 2006, Dayton, OH					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 15	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



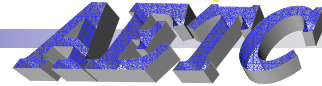
Overview



Develop America's Airmen Today ... for Tomorrow



- HQ AETC Plans, Requirements, and Programs
- Education Training Technology Application Program (ETTAP)
- Sample ETTAP Projects
- Example of Immediate Needs
 - C-130 Loadmaster Augmented Reality
 - GOSE
- Technology in Education & Training Conference (TETC)



HQ AETC Plans, Requirements, and Programs Division Provides Acquisition and Support For:

- Flying training requirements
- Technical training requirements
- Weapon systems training
- Information systems
- Training devices
- Major weapon system modifications
- Analytical support for efforts resolving current and future command issues



ETTAP



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- AETC's testbed for technology solutions:
 - A proof-of-concept program
- Identify and evaluate new or emerging technologies to improve the efficiency and effectiveness of education and training
 - One-year money; funds obligated in year received



ETTAP Criteria



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- Proof-of-concept
- Of acceptable risk
- Measurable/quantifiable results
- Completed within 18 months
- A viable solution to an education or training deficiency or inefficiency
- Application of a new or emerging technology concept – innovative to AETC
- Be integrated into curriculum instruction
- Generally under \$1M per project





Sample ETTAP Projects

Technical Training
Aircrew Training



PHOENIX

- GTACS DMT Training Technology

Kirtland

- EWO Embedded Sim in live C-130

LITTLE ROCK

- C-130 Loadmaster Augmented Reality

MAXWELL

- Immersive Mentoring Simulation

VANDENBERG

- ICBM Operational Procedures Emulator

MAXWELL

- Airpower Visualization Simulator

LUKE

- F-16 Simulator Base Line Data Collection

TYNDALL

- Airborne Warning & Control Sys (AWACS)

SHEPPARD

- Interactive Virtual Human Body

LAUGHLIN

- VIPERS

RANDOLPH

- Spatial Disorientation Device

RANDOLPH

- Combat Systems Officer Trainer

KEESLER

- Ultimate Virtual Classroom





VIPERS



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Description: Virtual Interactive Pattern Environment and Radio Communications Simulator (VIPERS)

- A software application that will inject advanced computer cognitive agent technology into the training of situational awareness, airmanship, communications and procedures training within the operational traffic pattern environment for primary pilot training
- VIPERS ETTAP study addresses a SUPT training deficiency documented in a previous AFRL ETTAP study (“Advanced Technology for Flying Training”)



AWACS Voice Recognition



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Description: Integration of voice recognition technology will allow Air Battle Manager (ABM) students to control simulated aircraft conducting air defense and tactical missions in a more realistic environment. Test being conducted at AFRL/HECP

Background: The 325 Air Control Squadron (ACS) training simulations are personnel intensive and do not allow ABM students additional opportunities for practice

Desired Result: Transfer of skills from simulation to live events will be more efficient and result in fewer live flying mission failures for ABM students.



Airpower Visualization Sim



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Description:

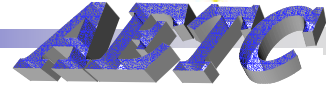
- A PC-based continuous-time simulation of theater air operations called *Modern Air Power*
 - Designed to visualize complex spatial and dynamic relationships inherent in theater air operations
 - Student in ASBC currently having difficulty visualizing and comprehending airpower concepts (range, speed, perspective) using the existing educational tool (wargame, *Blue Thunder*)
- **Expected Benefits:**
 - Builds air warriors
 - Enhances 2Lts' grasp of airpower theory through visualization of historic air campaigns



Immediate Need Areas



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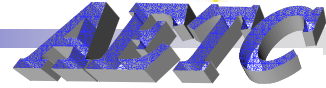
- Example of Immediate Needs
 - C-130 Loadmaster Augmented Reality
 - GOSE
- This is Market Analysis not a solicitation
- Programs will appear in FedBizOps
- Both are funded



C-130 Loadmaster AR (cont)



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Description: Augmented Reality training with see-through goggles to combine real world with training scenario overlays.

Background: C-130 Loadmaster training at Little Rock AFB. Decreasing flights available for training. Training takes place in 3 C-130 fuselages inside a hangar. Training environment does not allow for training of emergency procedures or deployment of cargo.

Status: Market Analysis for immediate proof-of-concept



C-130 Loadmaster AR



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AETC

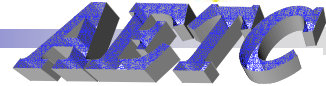




GOSE



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Background: Generalized Operations Simulation Environment (GOSE)

- Identify AETC education or training skill sets that are conducive to immersive virtual (VR) or augmented (AR) reality training
- Identify current hardware training devices/simulators that may be candidates to be replaced by VR or AR technology
- Conduct proof-of-concept studies
- GOSE Funding FY04 to FY09

Status: Market Analysis for FY07

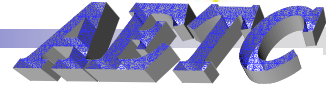




Technology in Education and Training Conference (TETC)



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- Free two-day symposium / exposition sponsored by AETC and San Antonio Chapter of the American Society for Training and Development
 - May 2007 at Norris Conference Center, San Antonio TX
- Conference goal
 - Become AETC's premier technology in education / training conference that provides a forum to share high-level requirements / plans for learning technologies w/ vendors and foster networking

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